APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,136	04/24/2001	Jeffrey Douglas Haggar	RSW920010029US1	6044

7590	03/09/2006

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EXAMINER
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ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/841,136
Filing Date: April 24, 2001
Appellant(s): HAGGAR ET AL.

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Technology Center 2100

Mitchell S. Bigel
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8 December 2005 appealing from the Office action

mailed 14 July 2005.

(1)   Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2)   Related Appeals and Interferences

A statement identifying the related appeals and interferences, which will directly affect or

be directly affected by or have a bearing on the decision in the pending appeal is contained in the

brief.

(3)   Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4)   Status of Amendments After Final

Amendment after final was filed.

(5)   Summary of Invention

The summary of the claimed subject matter is contained in the brief.

(6)   Grouping of Claims

The rejection of claims 1-24 stand or fall together. See 37 CFR 1.192(c)(7).

(7)   Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) *Prior Art of Record*

4,872,159	Hemmady et al.	10-1989
6,016,496	Robertson	01-2000
5,854,903	Morrison	12-1998

(9) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3, 5-9 and 11-13 are rejected under 35 U.S.C. 102(b). Claims 14-19 are rejected

under 103(a). This rejection is set forth in a prior office action, mailed on 14 July 2005.

DETAILED NON FINAL OFFICE ACTION

1.   Claims 1-19 are presented for examination in the application. Acknowledgement is made

of Information Disclosure document filed April 24, 2001.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that forms

the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless (b) the invention was patented or described in

a printed publication in this or a foreign country or in public use or on sale in this country, more

than one year prior to the date of application for patent in the United States.

3.   Claims 1-3, 5-9 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by

Hemmady et al (US 4,872,159).

4.   As per Claims 1, 5, 8, and 11 Hemmady teaches a method of rapid response for data

networking (data transfer) on ports associated with a user to an authorized destination in the

same group (virtual network) [Column 2, Lines 31-34], comprising: a) Hubs) that include a

plurality of data switching modules followed by a stage of circuit switching (network addressing)

(Column 2, Line 41), b) buffering of network transactions (Column 9, Line 20), c) utilizing

header information generated by internal link handlers to move data; (Fig 10) and d) allows data

packets destined for a common output to be chained so that they may be all transmitted together.

(Column 7, Lines 5457.) Thus Hemmady discloses all limitations of the rejected claim and

therefore anticipates the claims subject matter of claims 1, 5, 8 and 11.

5.   As per Claims 2, 3 and 9, Hemmady teaches a user interface module that serves as a

direct memory access port and a buffer for transactions received (Column 6, Lines 29-33).

Hemmady further teaches a method of storing information moving from the Network Interface

Module to the Memory and Interface Module (MINT) whereby the header information is copied

by the external link handlers and sent to the MINT control for processing (Column 9, Lines 5-6).

Thus Hemmady discloses all limitations of the rejected claim and therefore anticipates the claims

subject matter of claims 2, 3 and 9.

6.   As per Claims 6 and 12, Hemmady teaches a systems whereby every network transaction

maintains a header with a source port number to the Network Interface Module (Figure 20) that

uses this number to complete the routing to the destination end user (Column 16, lines 43-54).

Thus Hemmady discloses all limitations of the rejected claim and therefore anticipates the claims

subject matter of claims 6 and 12.

7.   As per Claims 7 and 13, Hemmady teaches a systems, whereby the buffer memory of the

MINT provides efficient streaming of data to and from the link handlers (Fig 11). The internal

link handler maintains a register containing the next address and count that allows a series of

blocks to be read from memory in a continuous stream (Column 32, Lines 1-6). Thus Hemmady

discloses ail limitations of the rejected claim and therefore anticipates the claims subject matter

of claims 7 and 13.

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

        (a) A patent may not be obtained though the invention is not identically disclosed or

described as set forth in section 102 of this title, if the differences between the subject matter

sought to be patented and the prior art are such that the subject matter as a whole would have

been obvious at the time the invention was made to a person having ordinary skill in the art to

which said subject matter pertains. Patentability shall not be negatived by the manner in which

the invention was made.

9.   Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hemmandy

(US 4872159).

With respect to Claims 14-19, Haggar discloses the invention as claimed, detailed above

with respect to Claims 1, 5, 8 and 11; however, Haggar does not particularly disclose a computer

program product on one or more computer readable media as being claimed in Claims 1, 5, 8 and

11. However, one of ordinary skill in the art would have recognized that computer readable

media (i.e. floppy, CD-ROM, etc.) would provide as a computer program product for

implementing a method, because it would facilitate the transporting and installing of the method

on a system. For example, a copy of the Microsoft Windows operating system can be found on a

CD-ROM from which Windows can be installed onto other systems, which is more practical

than a physical cable connection or manually entering the software. Therefore, it would have

been obvious to put Haggar's program on a computer readable media to facilitate transporting,

installing and implementing Haggar's program on other systems.

10.   Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hemmandy (US 4872159) in view of Munter (US 6,141,738).

With respect to Claims 4 and 10, Hammady et al, teaches a system of rapid response for

data networking (data transfer) on ports associated with a user to an authorized destination in the

same group (virtual network) [Col 2, Line 31-35], but fails to specifically teach a virtual network

defined by a plurality of logical partitions within a single computing device. However, Munter

discloses a similar address translation method utilizing a forward table data structure (Figs 3A -

3L) and a memory optimization process, which are essentially customized to hardware [to

provide a data structure and an address translation method that improves translation/routing

performance in a data communications system (Col 3, Line 46).

    Therefore, it would have been obvious to one having ordinary skill in the art at the time

of invention by applicant given their previous use in data communications, the advantage of

improvement of virtual networking having the teachings of Hemmandy and Munter before one.

The combination would teach a system of efficient data communications in a network that

services a wide range of distributed users, whereby data packet forwarding rates are one of three

main factors that contribute to the speed of traffic over the internet as taught by Munter (Col 1,

Lines 17 - 24).

DETAILED FINAL OFFICE ACTION

2.   The text of those sections of Title 35, U.S. Code § 102 and 103 not included in this

action can be found in a prior Office Action.

3.   <u>Claims 1-3, 5-9 and 11-13 are rejected under 35 U.S.C. 102(b) as been anticipated by</u>

<u>Hemmady et al (US 4,872,159, "Hemmady, hereinafter).</u>

4.   Claims 14-19 are rejected under 35 U.S.C. 103(a as being unpatentable over Hemmady (US 4,872,159, "Hemmady", hereinafter).

5.   As to the amended claims 1, 5, 8 and 11, the claims were amended by deleting "improving data transfer" and adding "transferring data." The amendment altered breadth of the claims but does not negate implied admission that transferring data over virtual was a prior art. However, scope of the claim is changed from improving to transmission, *per se.* Since all limitations are remained, Hemmady has been applied for rejecting the claims 1-3, 5-9 and 11-19, in the previous Office Action, instead of reiterating the previous rejection in to the rejections and citations cited in the previous Office Action, which are applicable, are hereby incorporated by references. Examiner further, elaborates the rational of rejection, the elaboration could be found in the section responsive to applicant's argument, below.

6.   In addition, as to amended claims 7, 14 and 17, added language "each outbound packing buffer onto the virtual network in a single transmission operation", in other words the claims requires packing or concatenating data packet or frame for single transmission, (See Hemmady, Abstract, figure 4; teaching outbound buffer for buffering received data from multiple UIM, conc. 95 the concatenate the same destined packets together for single transmission. into virtual network, Col. 8, lines 4-32.)

7.   <u>Claims 4 10 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over</u>

<u>Hemmandy (US 4872159) in view of what was well known in the art (as exemplified by</u>

<u>Morrison).</u>

8.   Regarding claims 1,10 and 20-22, Hemmady discloses the invention substantially, as

claimed, as described, in claims 1, 5, 8, 11, 14 and 17, but it is silent in defining virtual network

by a plurality of logical partitions within a single computer. Official Notice is taken (see MPEP

2144.03) using logical partition to define virtual elements, e.g., device, computer, machine, was

well known in the art at the time of the invention was made. Examiner further cited Morrison

(US 5,854,903), which clearly stated the used of logical partition in memory of a device to define

virtual network. Thus, it would have been obvious to one of ordinary skill in the art at the time of

the invention was made to recognize Hemmady implicitly described the same or to incorporate

the well-know concept as suggested by Morrison with Hemmady, if it has not been done so.

Because, it would improve efficiency of network data transmission, as suggested in Hemmady.

9.   Regarding claims 23-24, Hemmady discloses the invention substantially, as claimed, as

described, in claims 1 and 5, but it is silent on having an ISP web hosting to provide virtual

network to end users. Official Notice is taken (see MPEP 2144.03) virtual network provided by

ISP was well known in the art at the time of the invention was made, examiner further cited

Roberson (US 6,016,496), which clearly stated the same in the Background of the invention

(Col. 1, lines 15-20), for evident this assertion. Thus, it would have been obvious to one of

ordinary skill in the art at the time of the invention was made to incorporate the well-know

concept with Hemmady, or vice versa, because it would improve efficiency of network data

transmission, as suggested in Hemmady.

(10) Response to Arguments

Appellant argue variety of reasons in support of his position against the anticipation of

the independent claims 1, 5, 8 & 11 with Hemmady that was used as the prior art in rejecting the

claimed invention.

A. Independent Claims 1 and 8 are Patentable over Hemmady.

In context of appellant's argument on page 7, Hemmady failed to teach packing outbound

data packet for a particular network address.

(i) All of the expressly claimed features are present in the cited reference.

As to appellant's argument above the examiner would like to point out that MINT (figure

4) performs a variety of functions, which include some of the overall routing within the network

(one in the ordinary skill in the art would agree that source and destination addresses are needed

in order to conduct routing), buffering of network transaction (i.e. data packet) and also address

translation (see col.9, lines 17-24). Hammady further explained the flow of data in the network.

On col.30 lines 60-67 and col.31, lines 1-27 it states that data packets enter the MINT on a high-

speed data channel 3 from each NIM (see figure 10), each packet having it's own header

containing routing information e.g. network addresses or next hop addresses (this shows that

although the packets were buffered in the FIFO 95 of figure 4 they still sustain their structural

integrity with respect to the header information which dictates its source (originating address)

and destination address. Figure 4 show two packing buffers (FIFO 94) that are allocated to each

of the plurality of User Interface Modules (PC's with individual network addresses) that send

their packets (network transaction unit) towards the MINT from which (packets) the sender can

be identified "sender identification on col.8, lines 23" {please see col.8, lines 1-23). In addition

the packet classification process in Hemmady occurs at the hardware (UIM), which is at the

physical layer of the OSI model and is therefore independent from the user ID. Thus it is clear to

the artisan that the classification would require addresses rather than user ID as alleged by the

applicant.

B. Independent claims 5 & 11 are patentable over Hemmady.

Appellant's argued in addition to claim1 that the prior art failed to describe the two

network addresses.

(ii) All of the expressly claimed features are present in the cited reference.

In addition to examiners response to claim 1 above Hemmady clearly teaches classifying

the packets, which are sent from multiple users (UIM) therefore multiple addresses are required.

Hemmady states that one of the functions that MINT performs include some of the overall

routing within the network (one in the ordinary skill in the art would agree that source and

destination addresses are needed in order to conduct routing). Additionally to further support the

argument Hammady further explained the flow of data in the network. On col.30 lines 60-67 and

col.31, lines 1-27 it states that data packets enter the MINT on a high-speed data channel 3 from

each NIM (see figure 10), each packet having it's own header containing routing information

(which is infant the address of the next hop address because in a typical network the packet goes

though multiple network devices before reaching its destination therefore the "routing

information" disclosed by Hemmady facilitates the packet in reaching its final destination.

C. Dependent claims 2, 3, 6, 7, 9, 12 and 13 are Independently patentable.

Applicant argued that with respect to dependent claim 2, 3, 9 and 12 prior art failed to

disclose "next-hop address on a virtual network" as recited in claims 2, 3, 6, 9 and 12 as opposed

to one of many other addresses on a virtual network.

(ii) Cited reference contains features claimed in dependent claims.

As to applicants argument Hemmady states that one of the functions that MINT performs

include some of the overall routing within the network (one in the ordinary skill in the art would

agree that source and destination addresses are needed in order to conduct routing). Additionally

to further support the argument Hammady further explained the flow of data in the network. On

col.30 lines 60-67 and col.31, lines 1-27 it states that data packets enter the MINT on a high-

speed data channel 3 from each NIM (see figure 10), each packet having it's own header

containing routing information (which is infant the address of the next hop address because in a

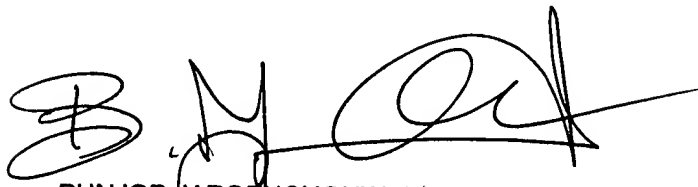typical network the packet goes though multiple network devices before reaching its destination

therefore the "routing information" disclosed by Hemmady facilitates the packet in reaching its

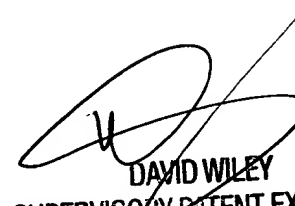final destination.

Respectfully submitted

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Art Unit 2143
March 1, 2006

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